



Armed Forces College of Medicine

AFCM



Submandibular & Sublingual Salivary Glands

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Lecturer of Anatomy*

INTENDED LEARNING OBJECTIVES (ILO)



• **By the end of this lecture the student will be able to:**

1. Describe the shape, position, surfaces, relations of submandibular salivary gland
2. Describe course and site of opening of submandibular duct
3. Discuss nerve and blood supply of the submandibular gland
4. Describe position , relations , ducts , nerve and blood supply of sublingual salivary gland

Key Points



- 1. Anatomical features of submandibular gland**

- 2. Anatomical features of sublingual gland**

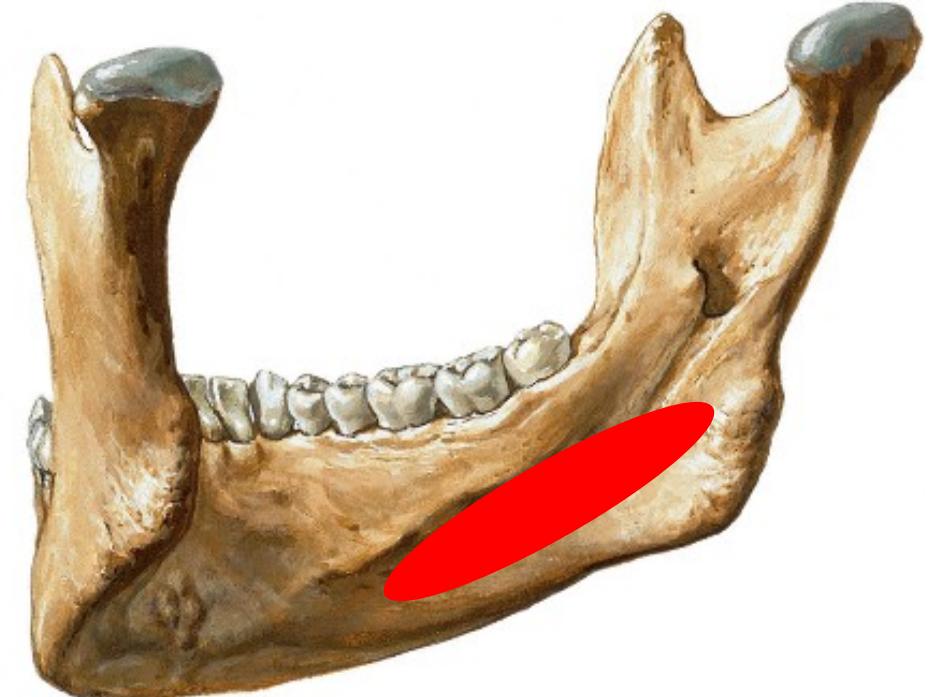
Submandibular Gland



- **Position:**

**Lodged in the
submandibular fossa of
the mandible**

- **Shape:** wedge shaped.
- **Size:** is about the size of a walnut.

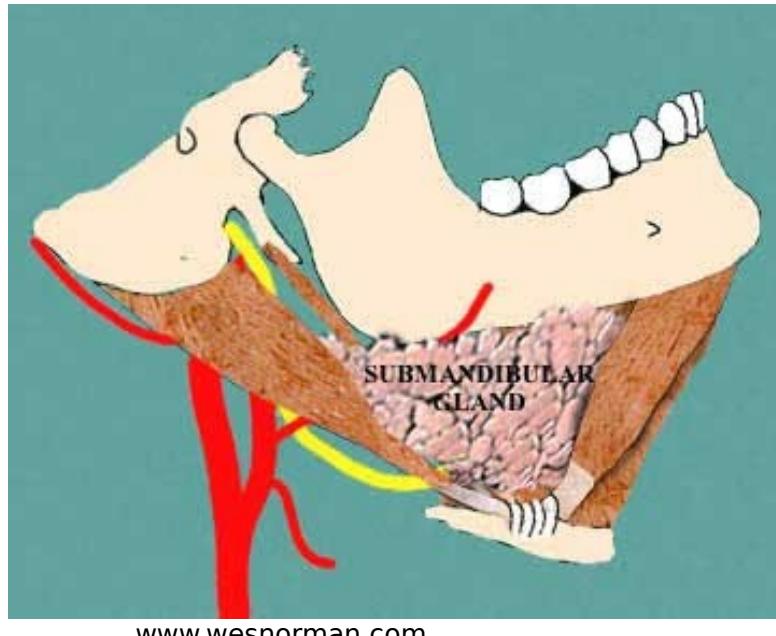


Atlas of human anatomy by Frank H. Netter, 6th Edition

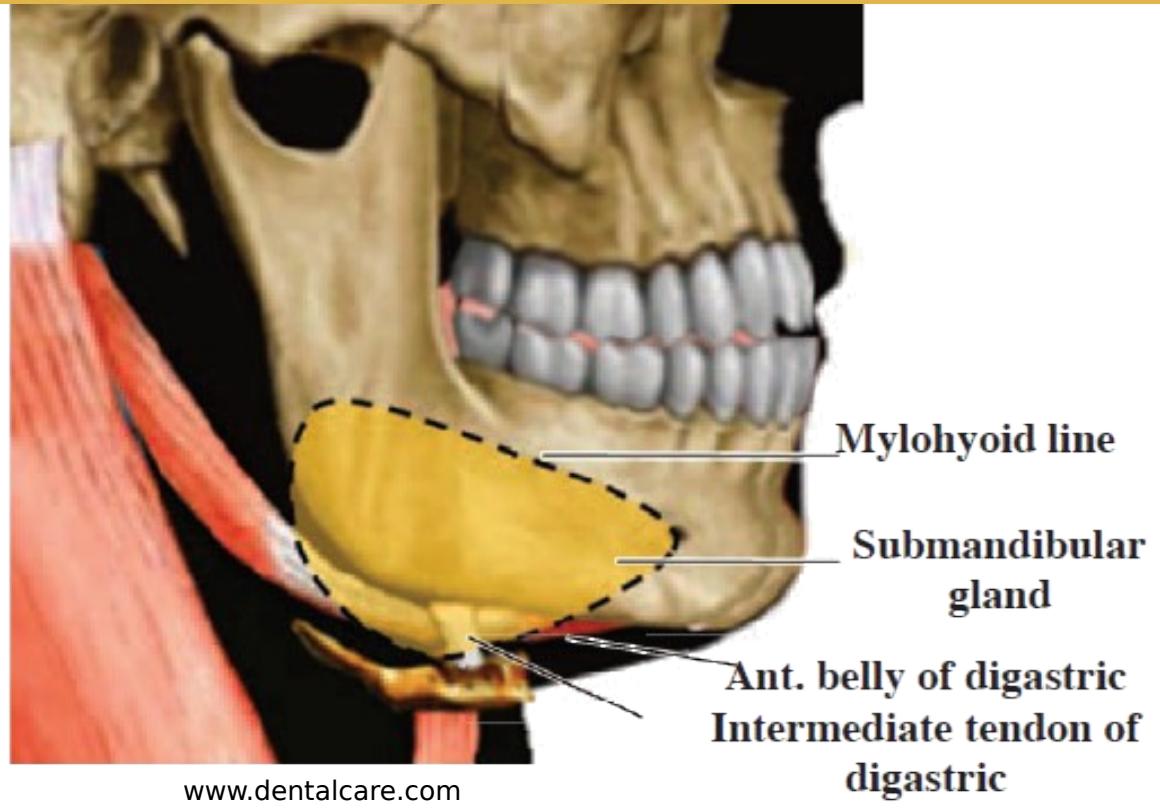
Submandibular Gland



- **Extent**



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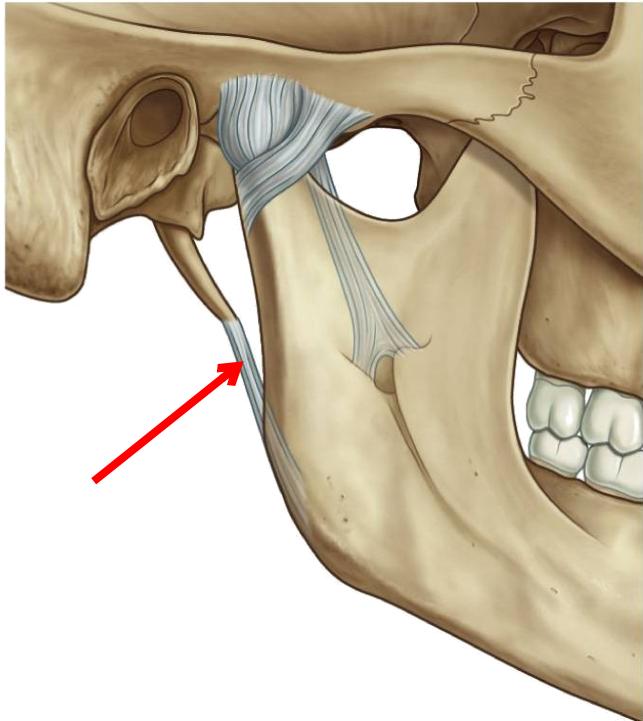


www.dentalcare.com

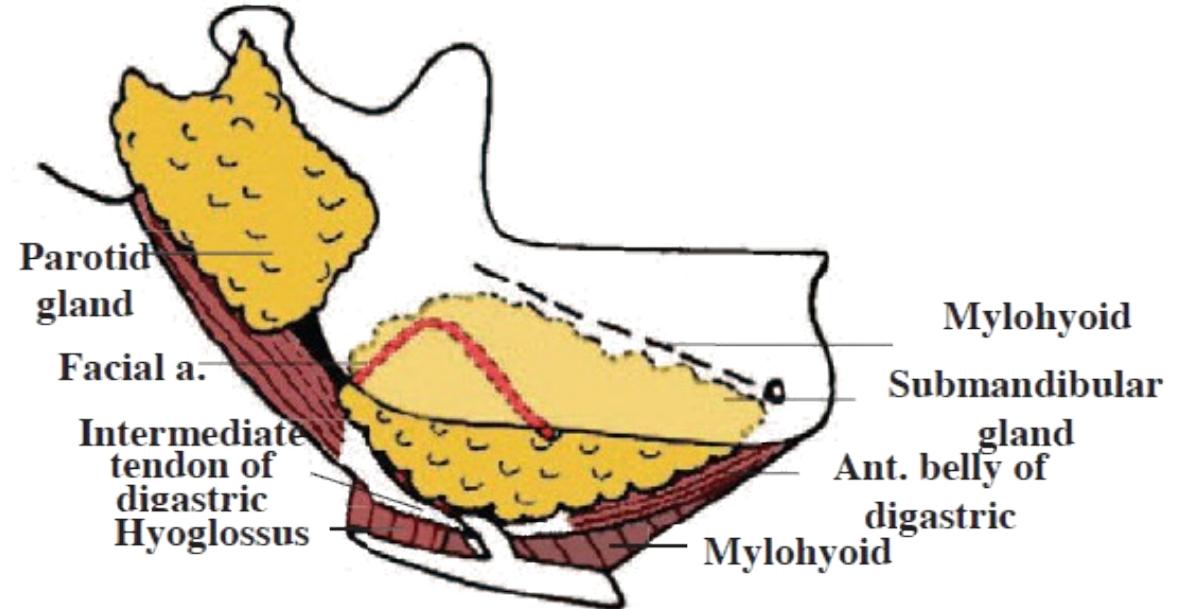
- 1. Superiorly:** up to mylohyoid line.
- 2. Inferiorly:** overlaps intermediate tendon of the digastric.
- 3. Anteriorly:** reaches anterior belly of digastric.



Submandibular Gland



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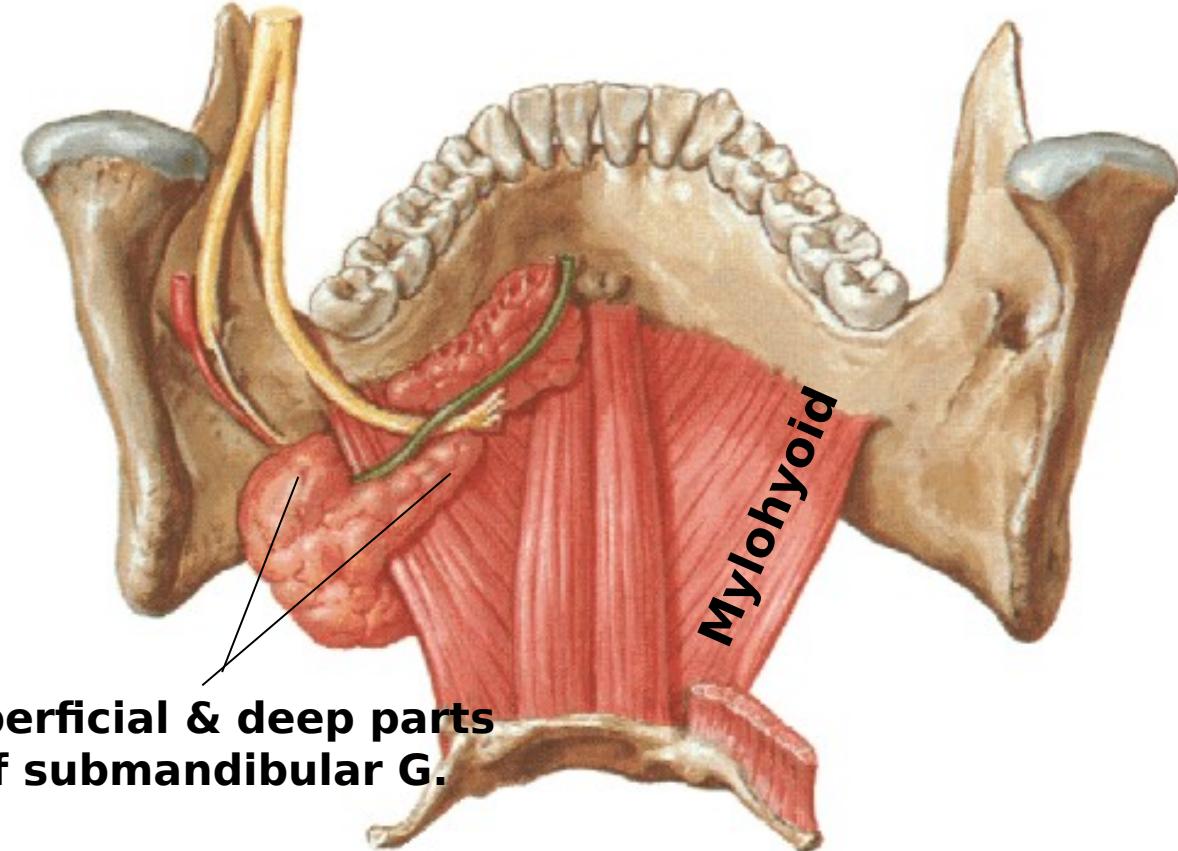
4. Posteriorly: reaches Stylomandibular ligament which separates it from the parotid gland.

Submandibular Gland



Parts:

Formed of a large superficial part and small deep part (the 2 parts are continuous at the posterior border of mylohyoid)



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Submandibular Gland



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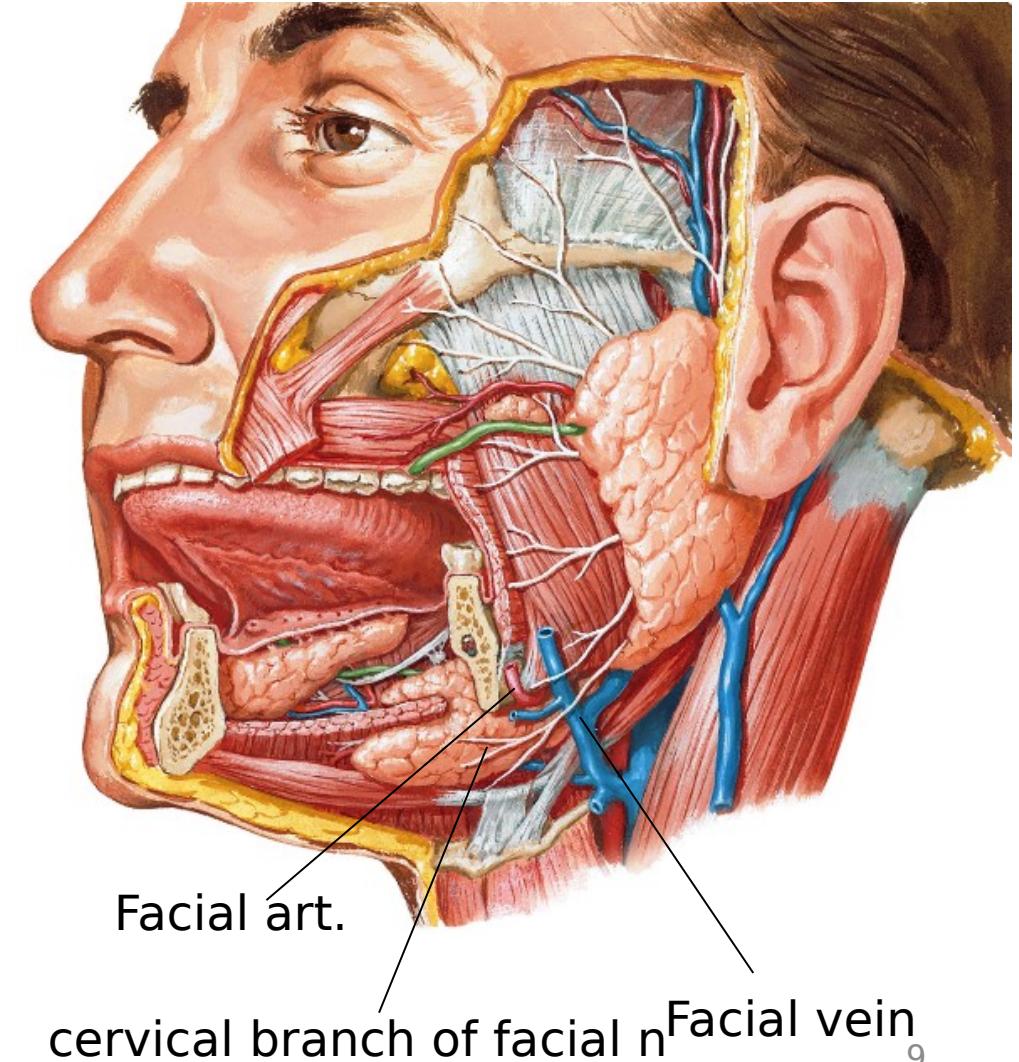
1) Superficial part:

Has 3 surfaces:

a. Lateral surface:

b. Inferior (superficial) surface:

c. Medial surface

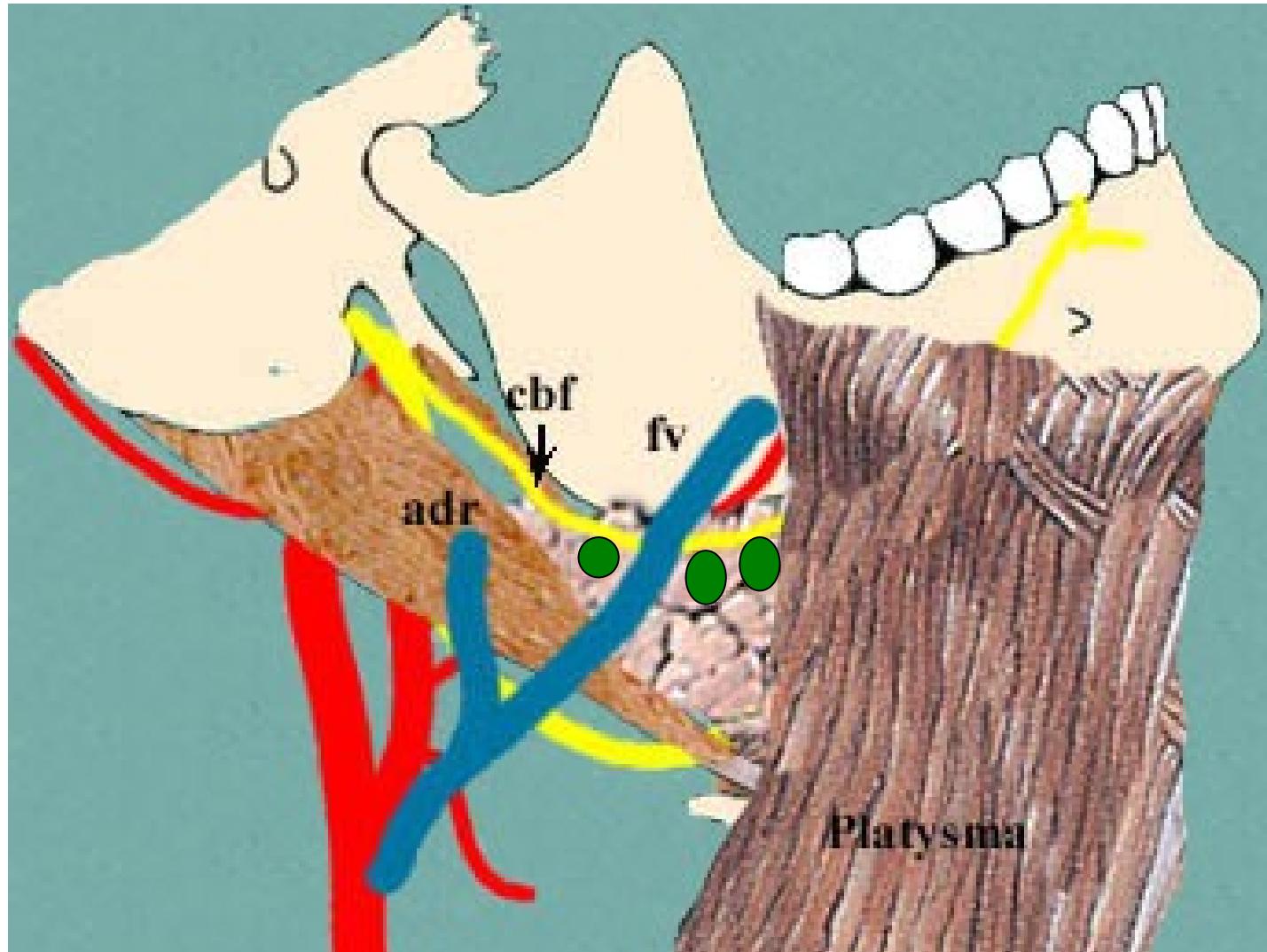


Submandibular Gland



Relations of the Superficial surface

- Skin, superficial fascia, deep fascia.
- Submandibular L.N.
- Crossed by facial vein and cervical branch of facial nerve.

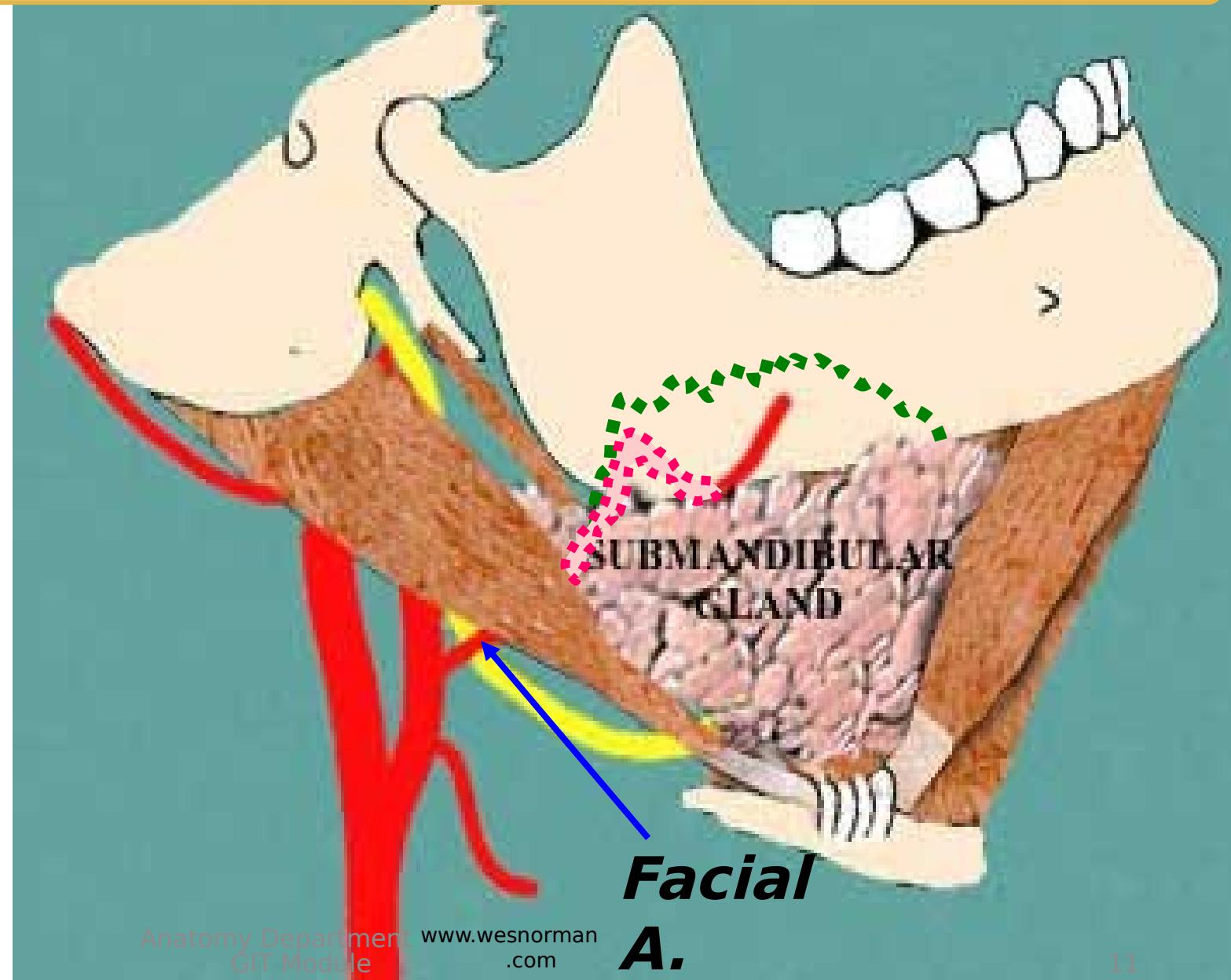


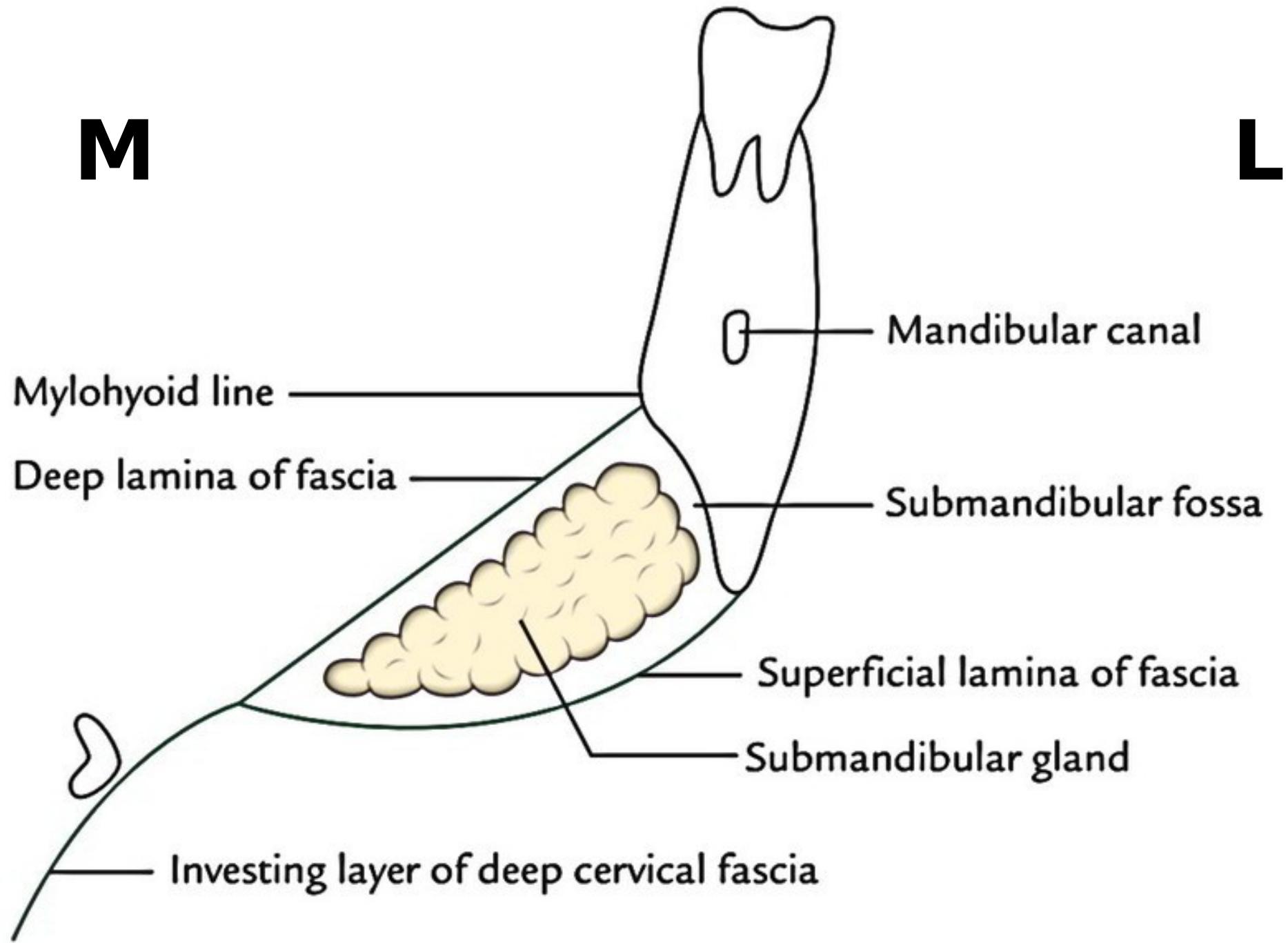
Submandibular Gland



Relations to the Lateral Surface

- Submandibular fossa of mandible.
- Facial artery lies between the gland and the bone.







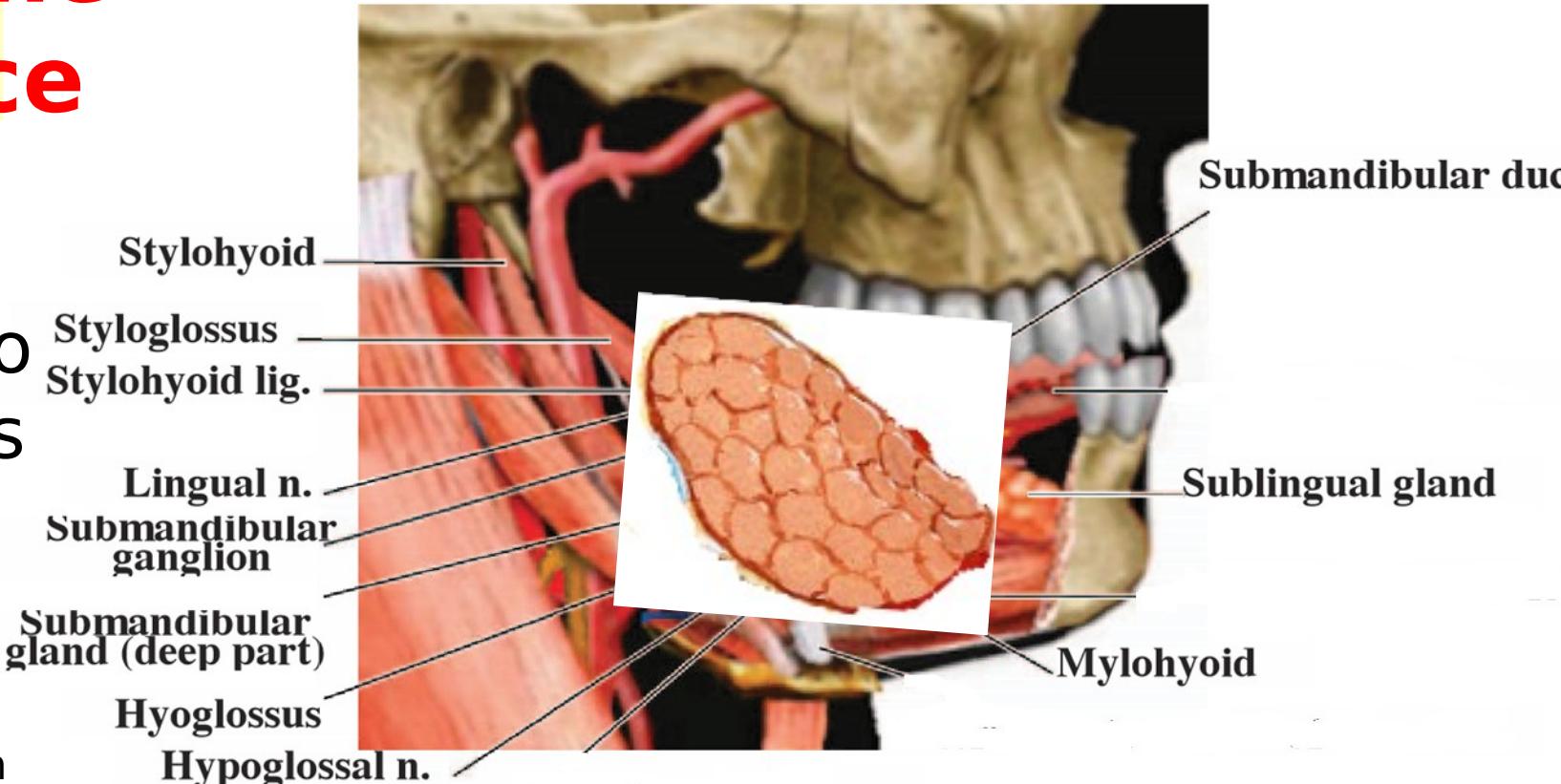
Submandibular Gland

Relations to the Medial Surface

Anterior part: related to mylohyoid

Middle part: related to hyoglossus & structures lying on it

Posterior part: rests on wall of pharynx separated from it by 9th cranial n., styloglossus m., stylohyoid ligament.

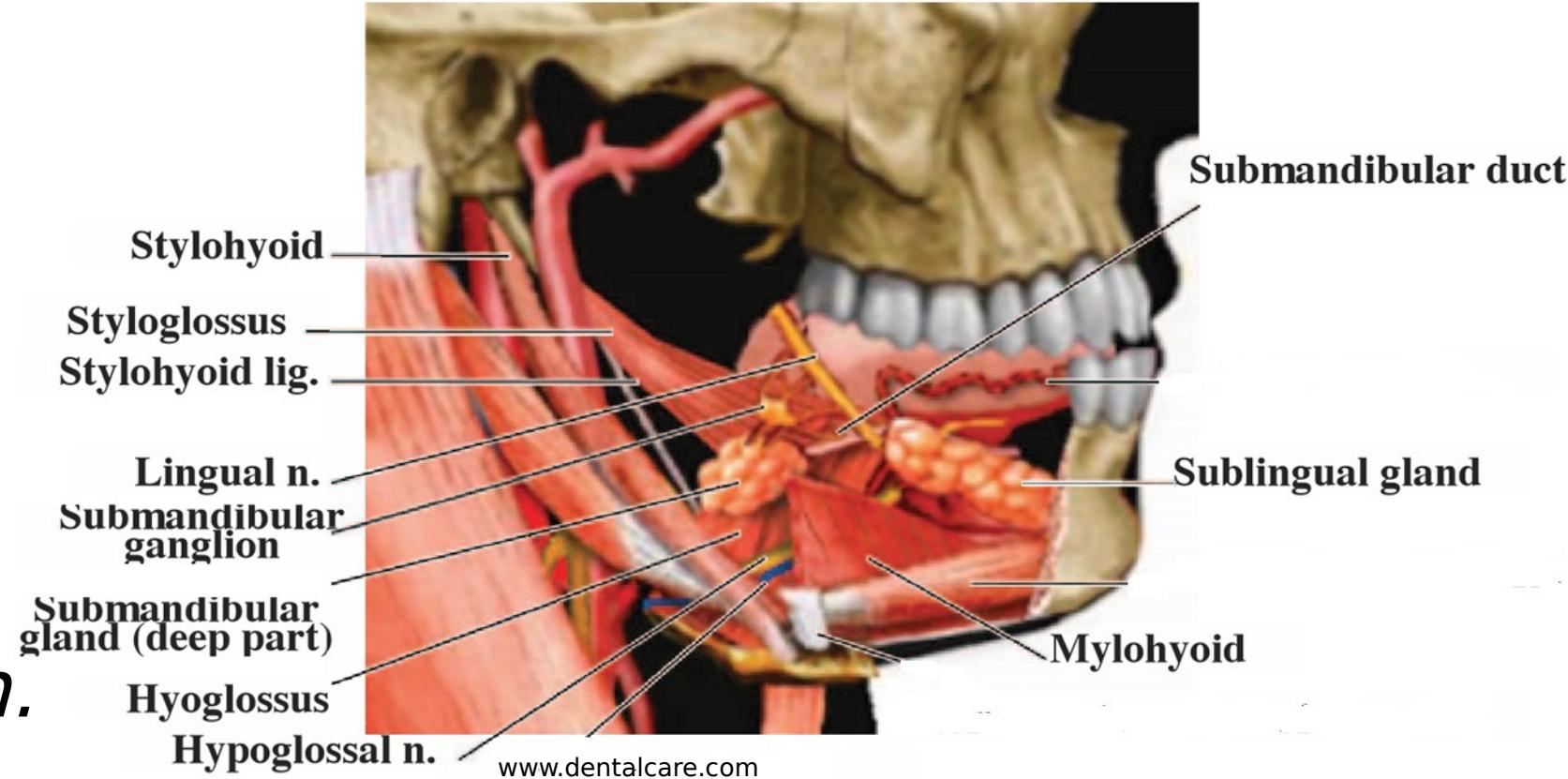


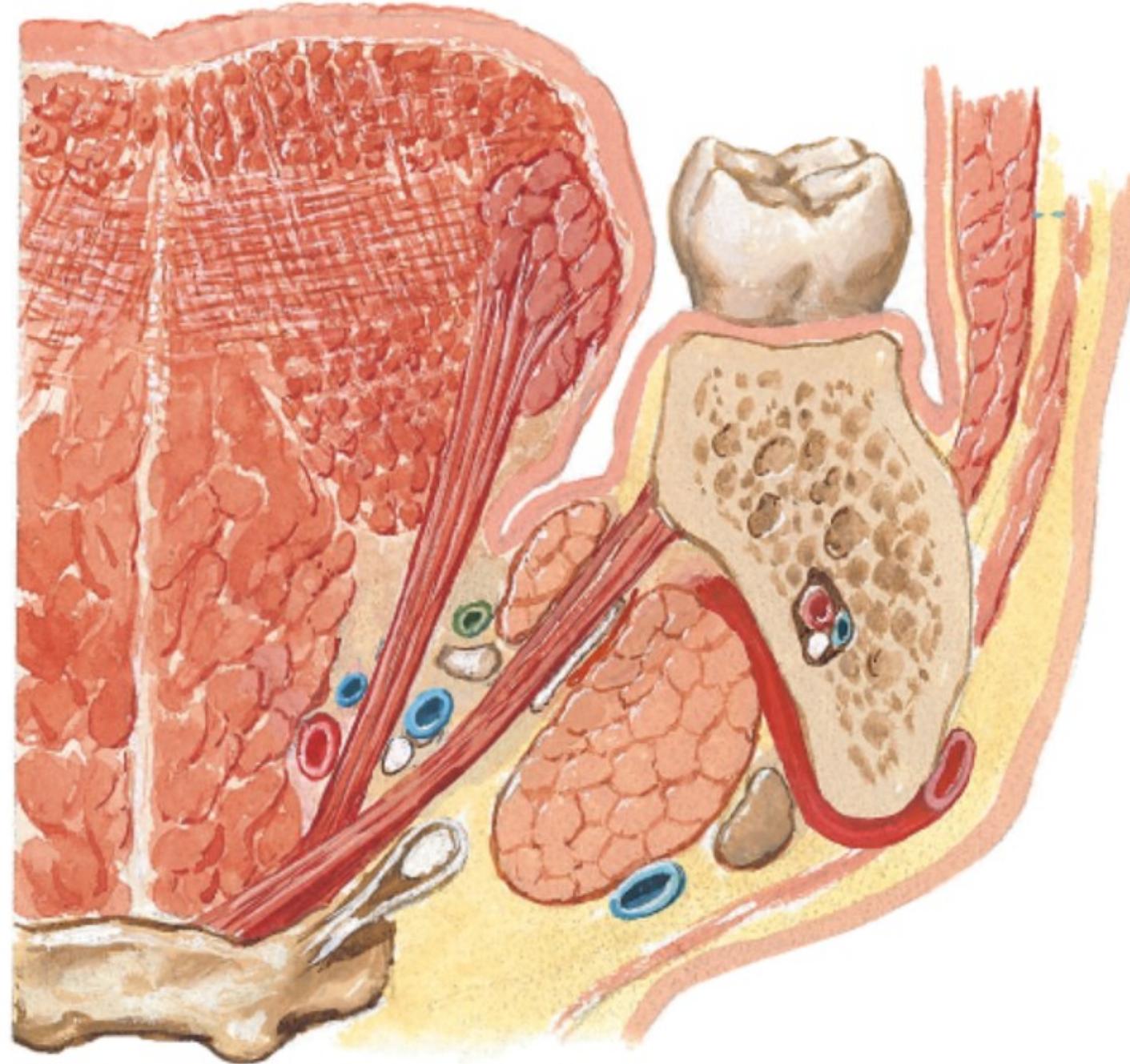
Submandibular Gland



2) Deep part:

Between **2 Ms:**
mylohyoid &
hyoglossus *ms.*
between **2 nerves:** lingual *n.*
above &
hypoglossal *n.*
below.





Submandibular Gland

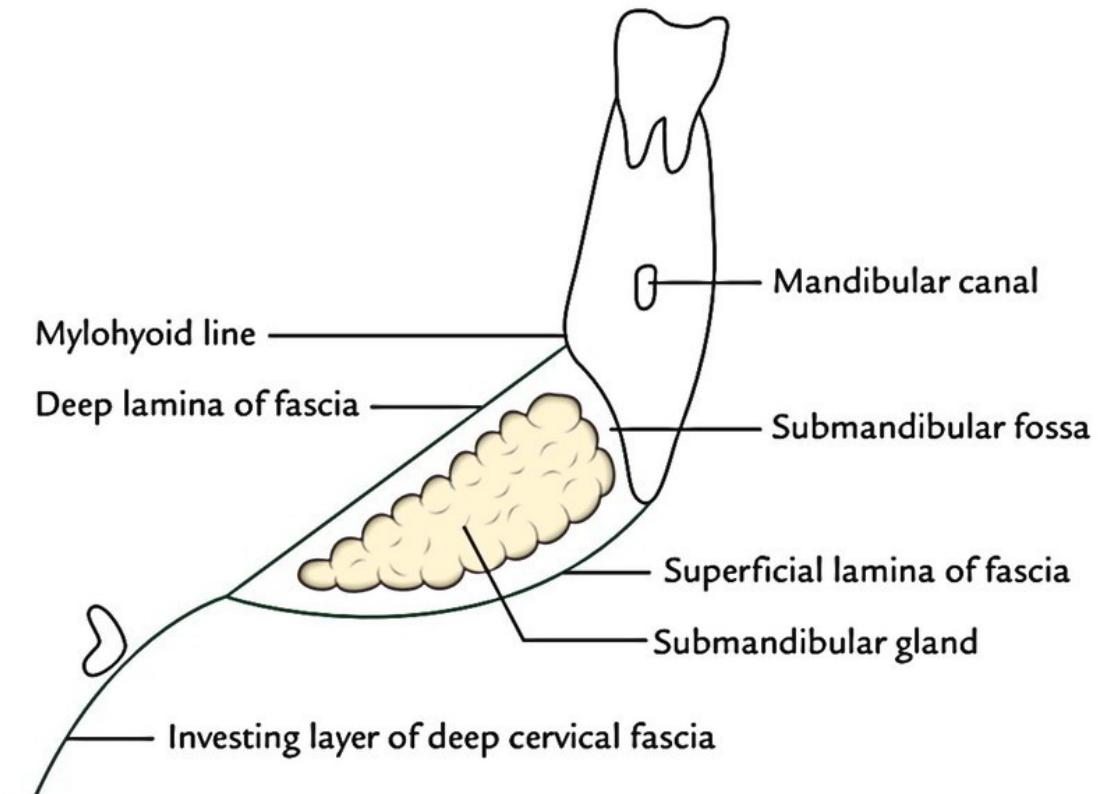


Fascial covering

2 layers of deep cervical fascia:

a) Superficial layer covers the gland inferiorly & attaches to the base of mandible.

b) Deep layer covers the medial surface of the gland & attaches to mylohyoid line of the mandible



Coronal section

Submandibular Gland

Nerve supply:

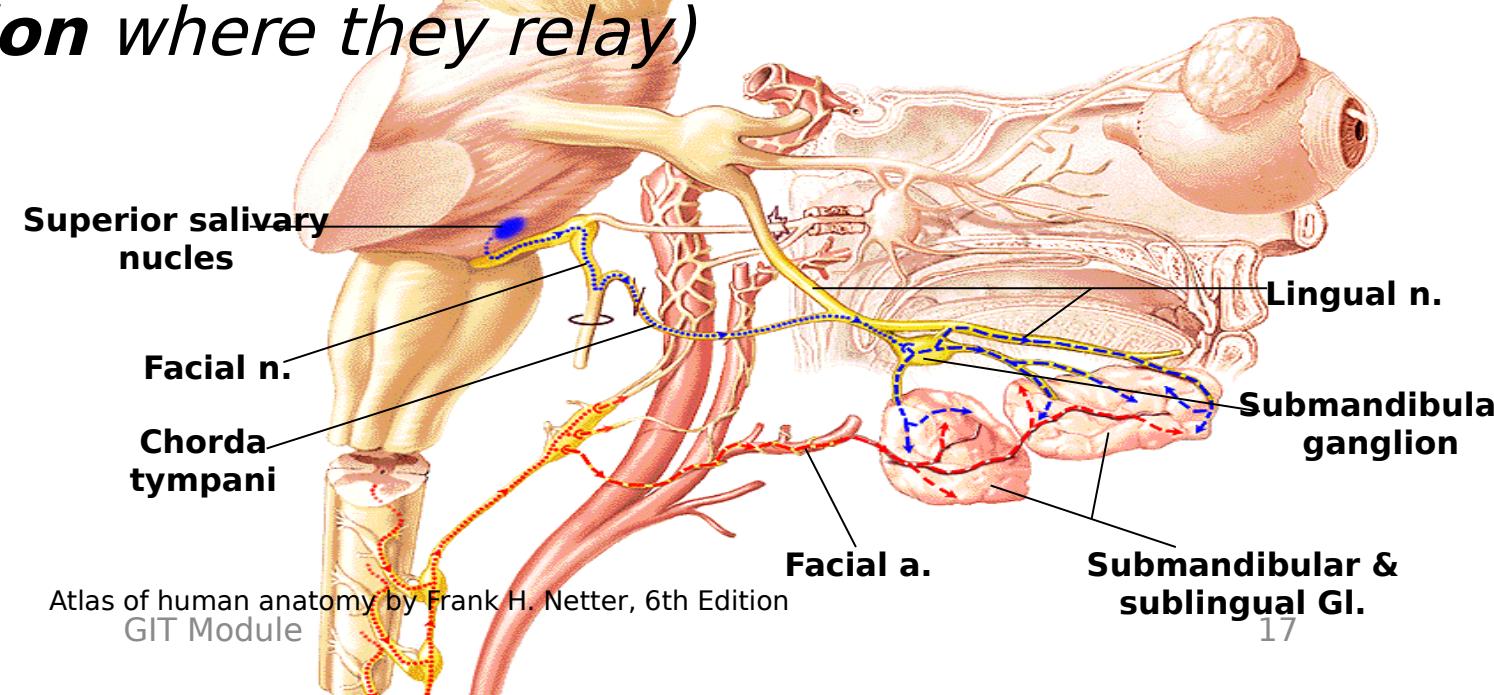
- **Sensory:** lingual nerve.
- **Sympathetic:** plexus around facial artery.
- **Parasympathetic:** postganglionic fibers from the submandibular ganglion (*the preganglionic fibers originate from superior salivary nucleus of facial n., run into the chorda tympani which joins lingual n, to the submandibular ganglion where they relay*)

Blood supply:

- Facial & lingual vessels

Lymphatic drainage:

Submandibular LN.



Atlas of human anatomy by Frank H. Netter, 6th Edition
GIT Module

Submandibular Gland

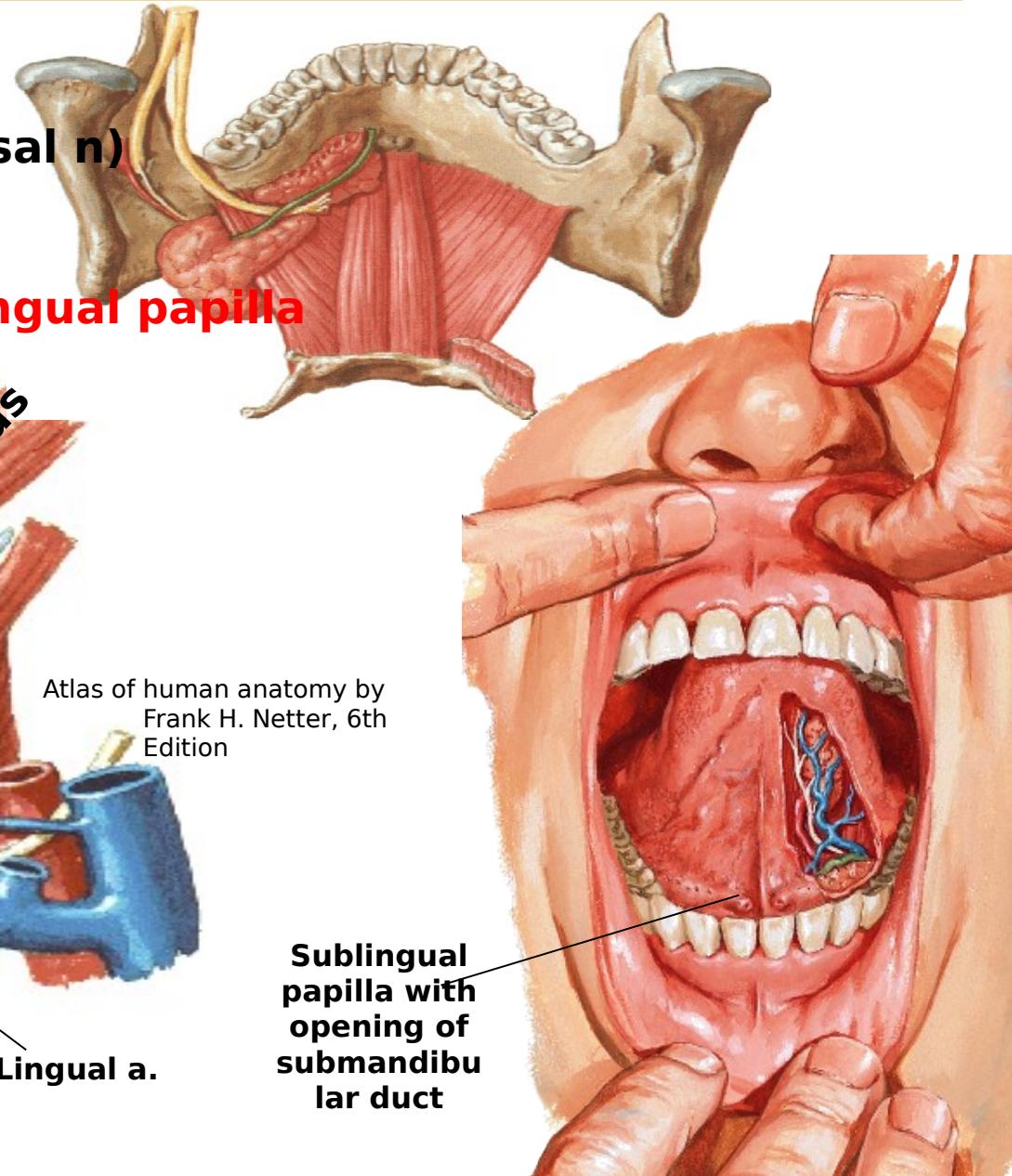
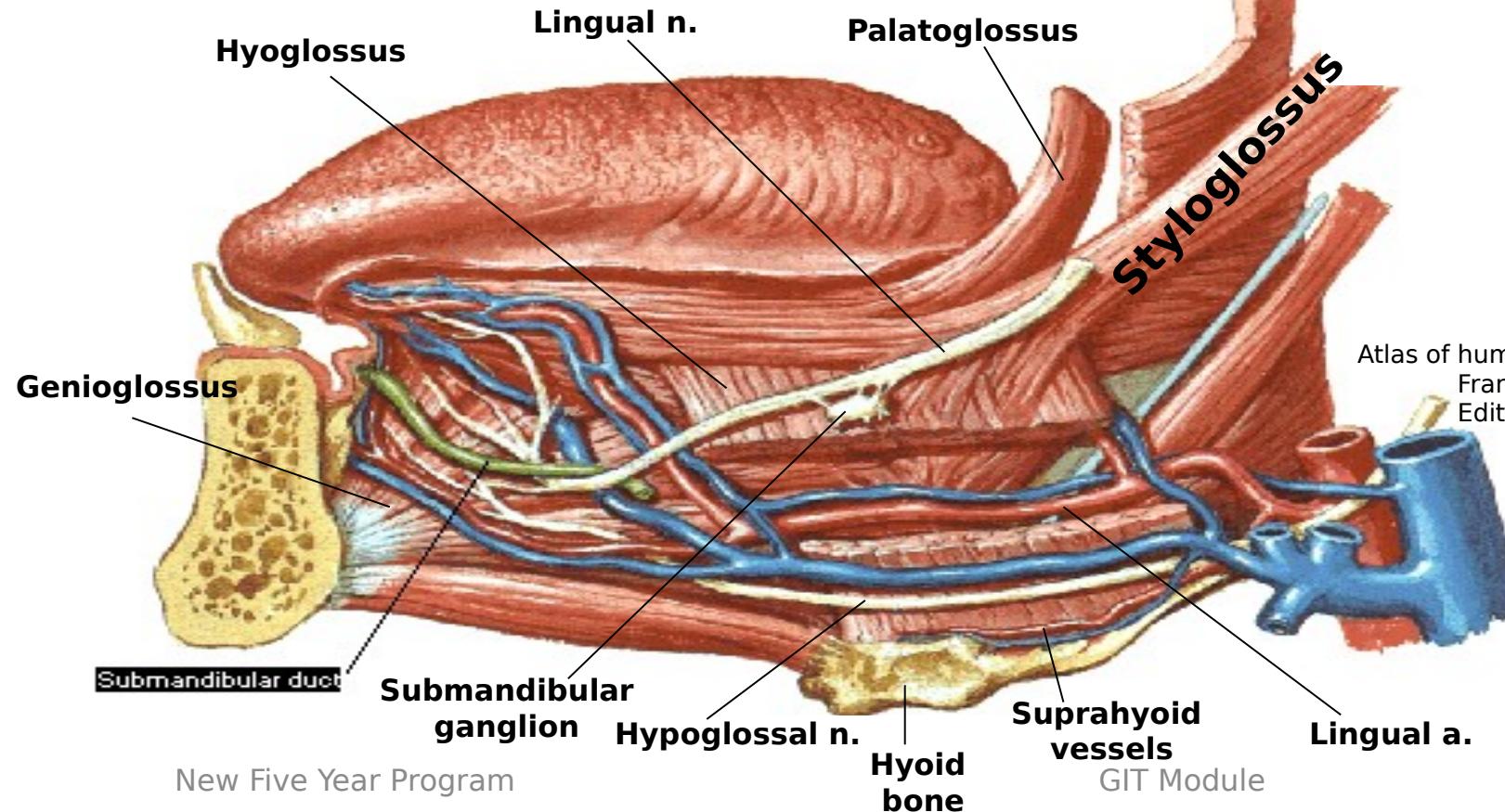
About **5 cm** long.

Passes on **hyoglossus** (between lingual & hypoglossal n)

lingual n. hooks around it from lat. to med.

Runs between **genioglossus** & **sublingual gland**

Opens in the floor of mouth on the summit of **sublingual papilla**

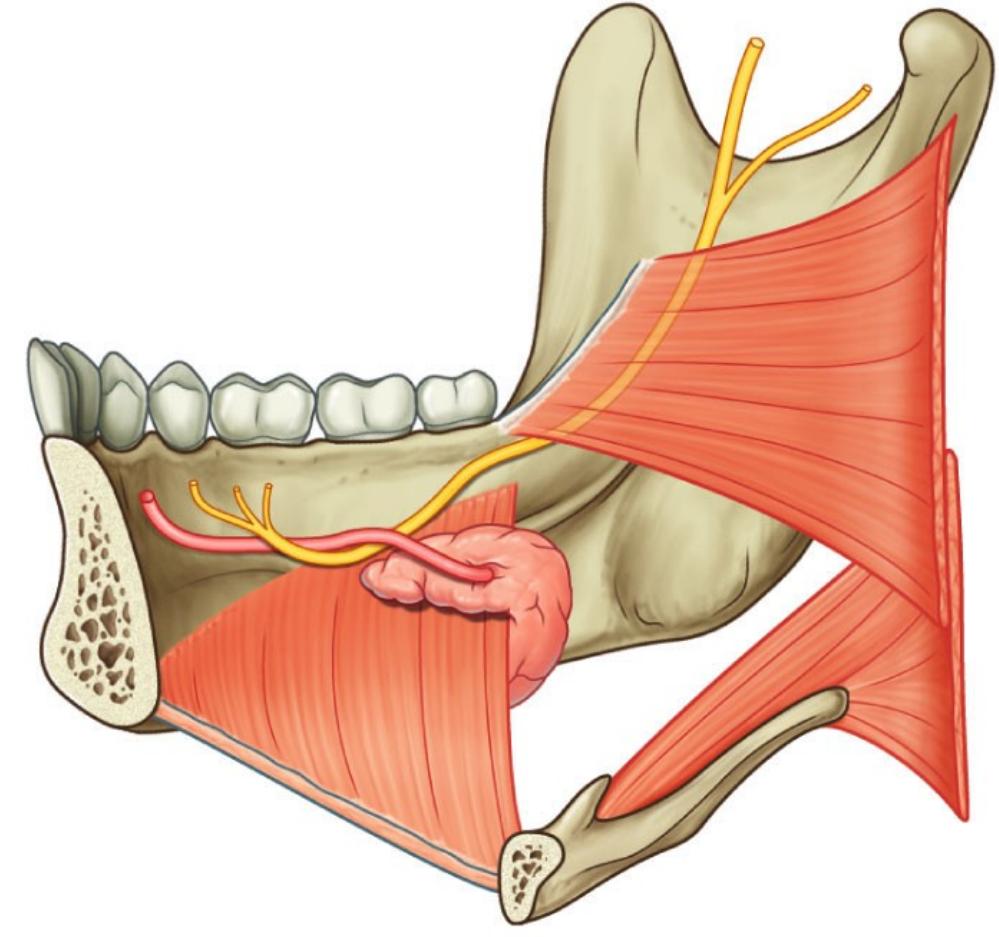


Submandibular Gland

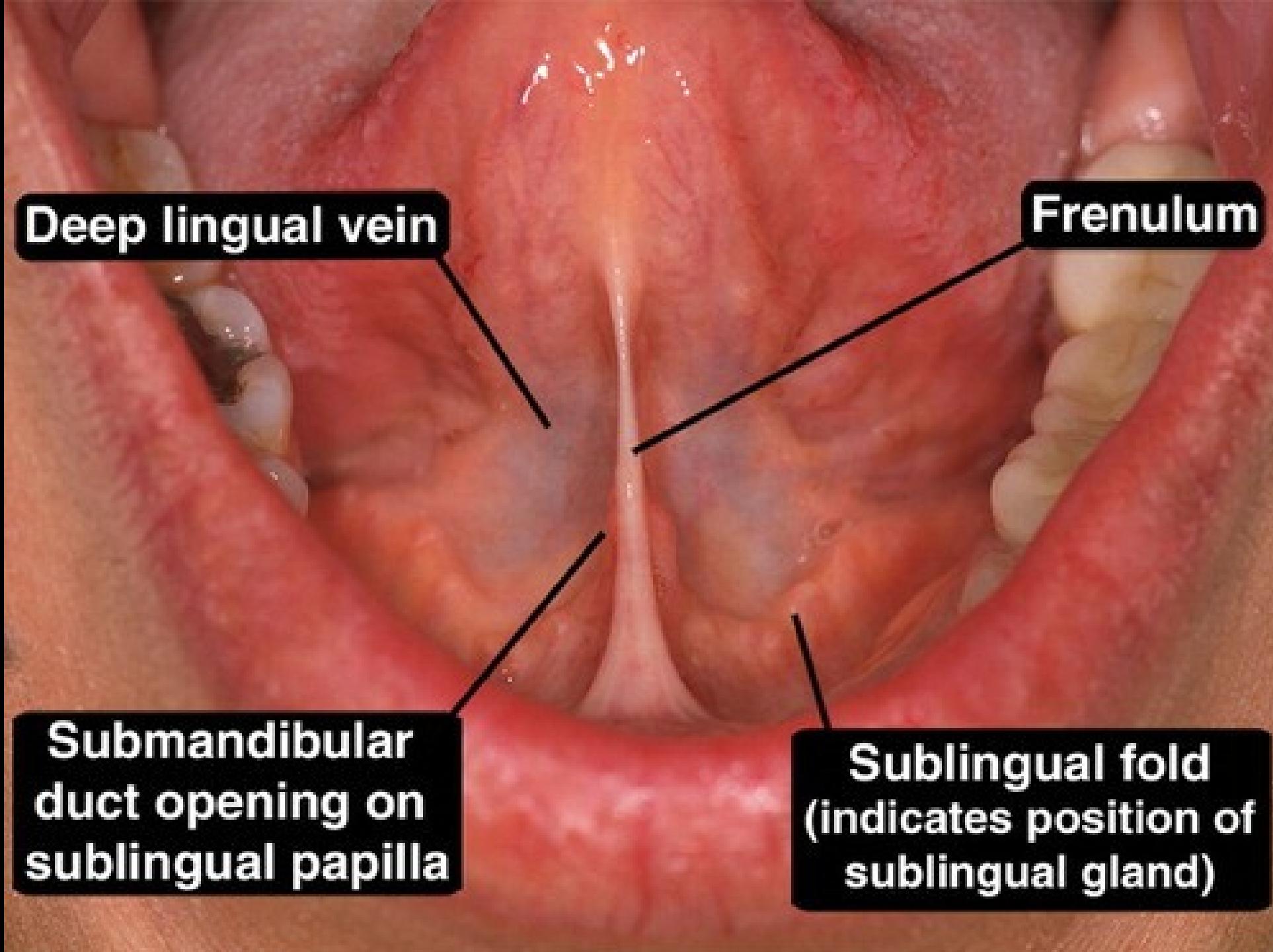


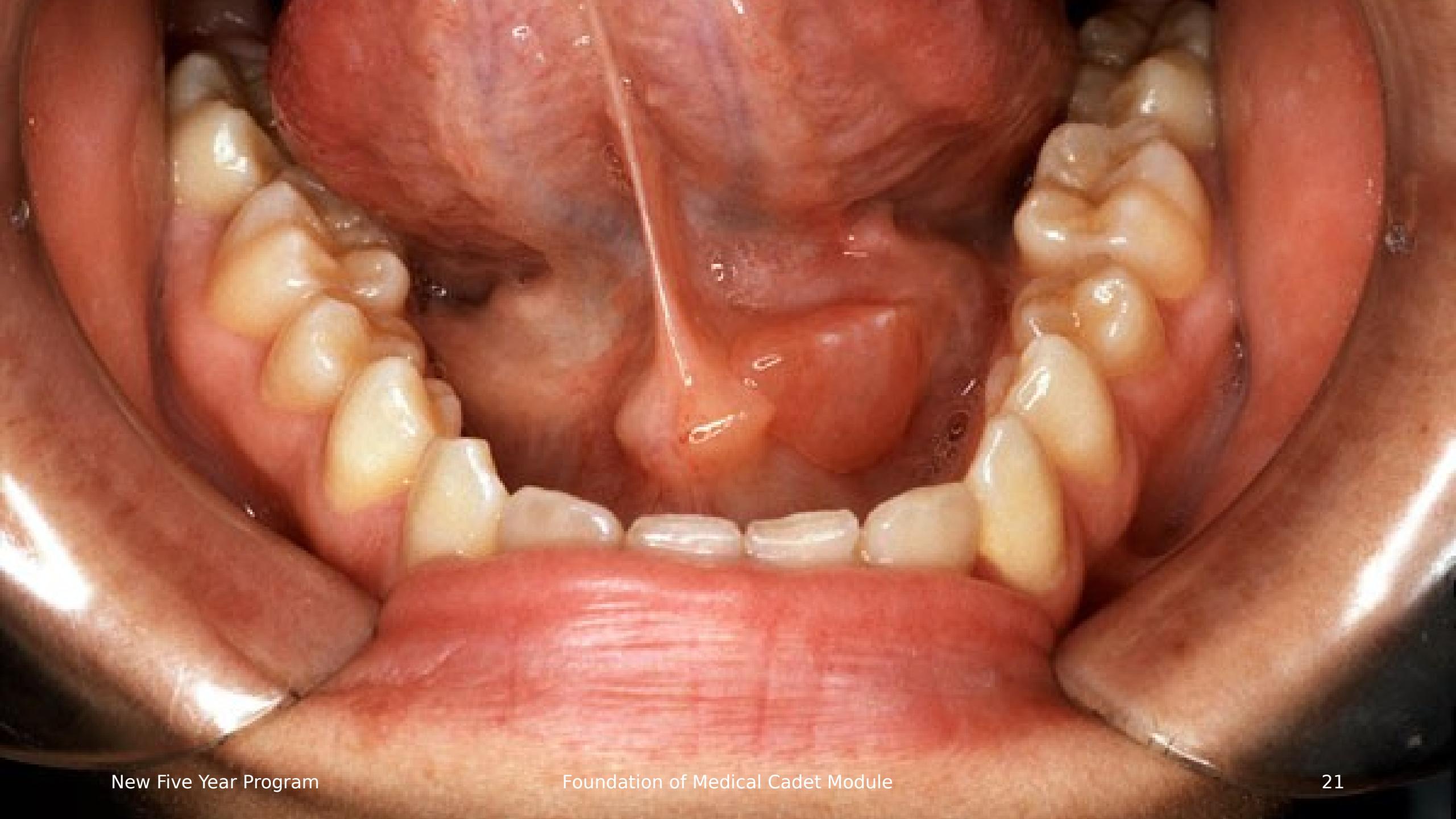
Relation between lingual nerve & Submandibular duct

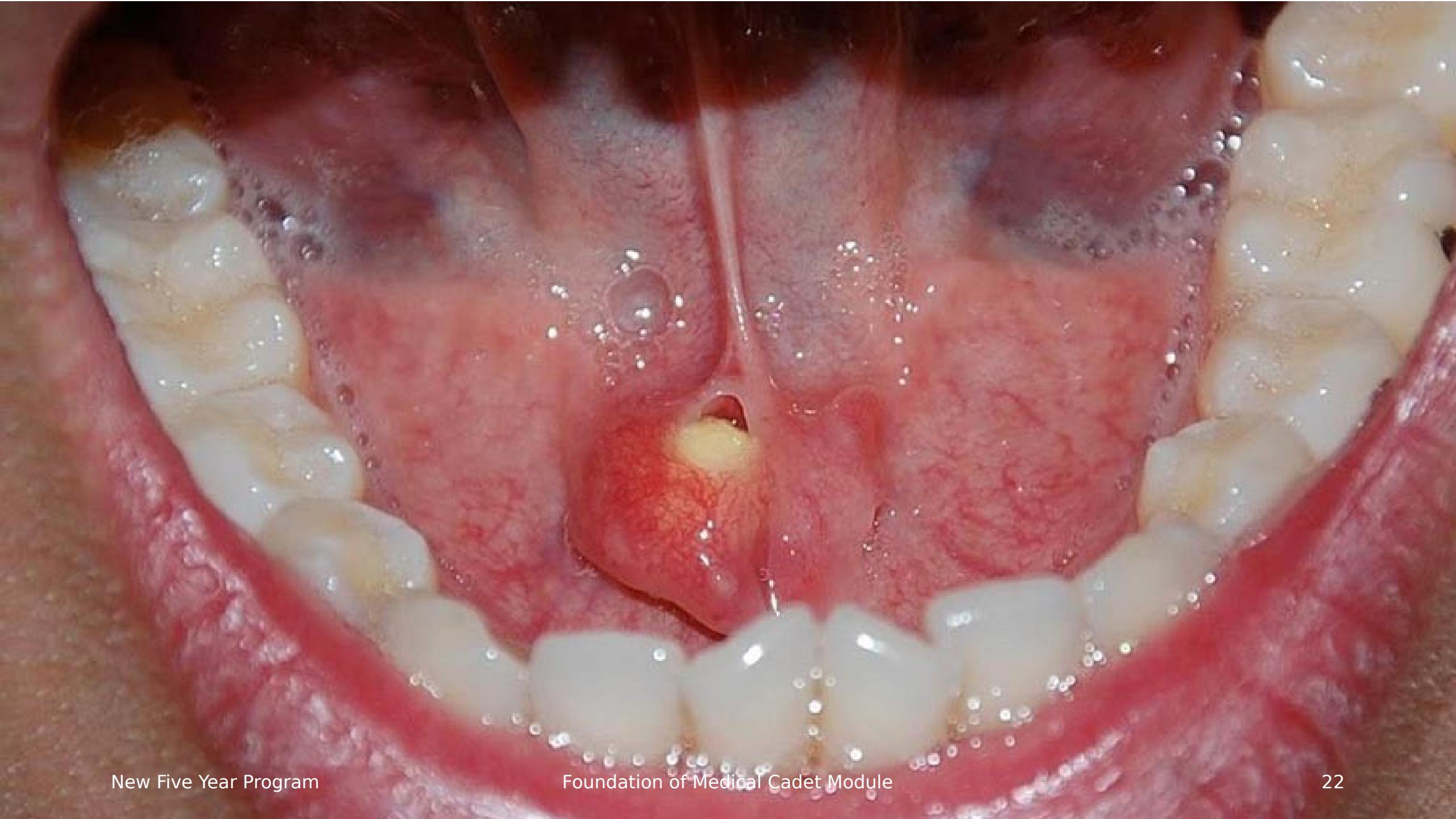
- 1. Lingual nerve is lateral to the duct.**
- 2. Then inferior.**
- 3. Finally medial.**



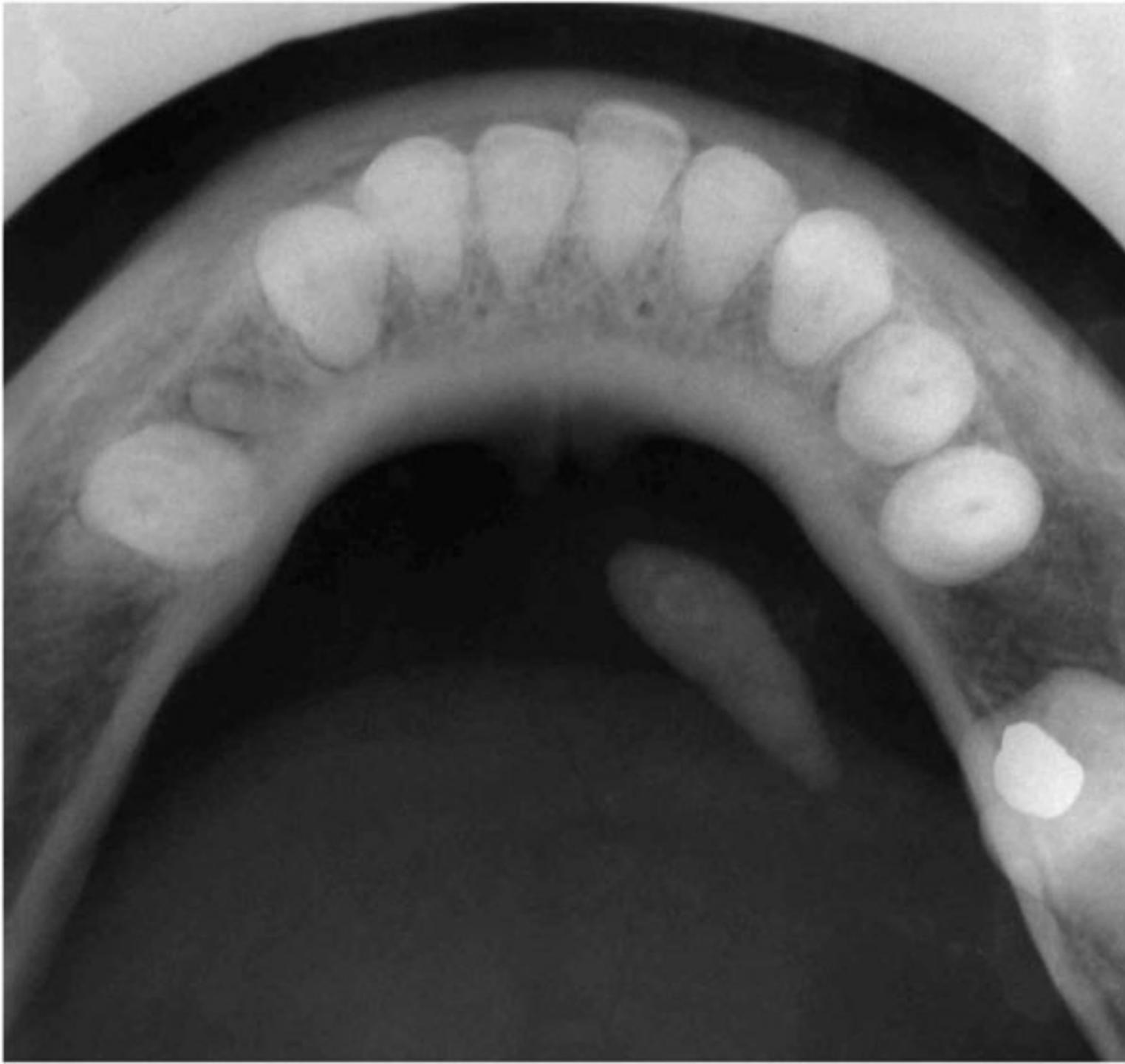
Gray's Anatomy for Students-4th Edition



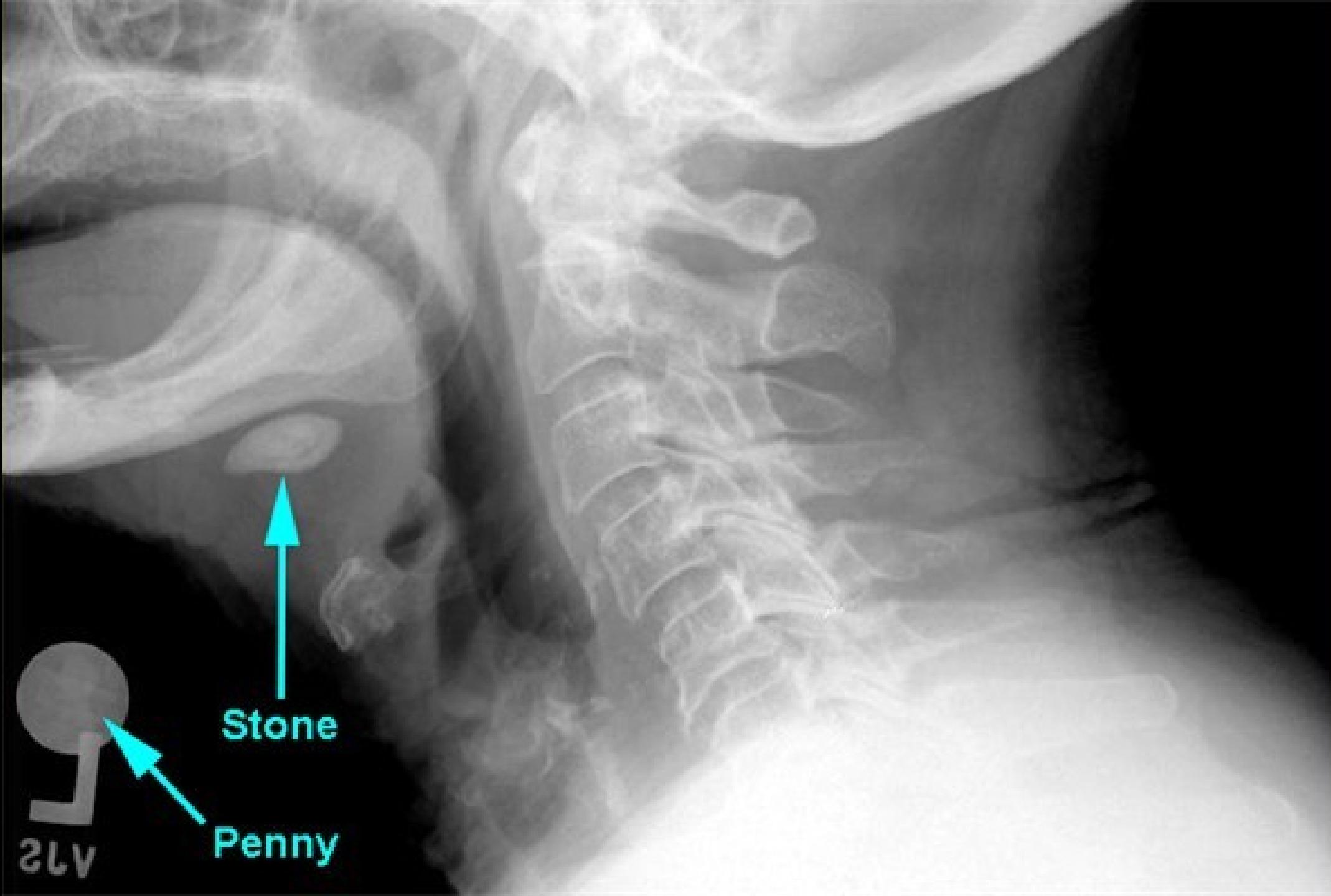




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Lecture Quiz



Which of the following nerves supplies sensory fibres to the submandibular gland?

- a) Auriculotemporal nerve
- b) Lingual nerve
- c) Chorda tympani
- d) Inf alveolar nerve



Sublingual Gland

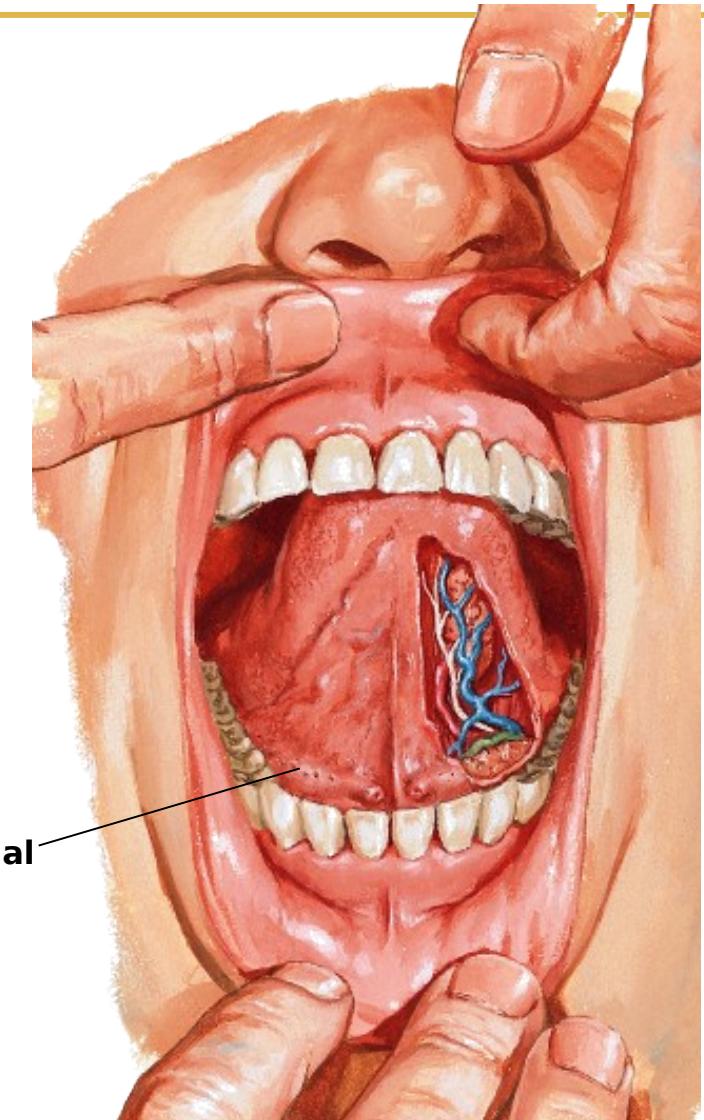
- **Position:**

Lodged in **sublingual fossa** of mandible below mucosa of floor of mouth forming **sublingual fold**.

- **Size:** is the smallest salivary gland.

- **Sublingual ducts:**

8-20 small ducts that open separately on summit of **sublingual fold** in the floor of mouth



Sublingual Gland

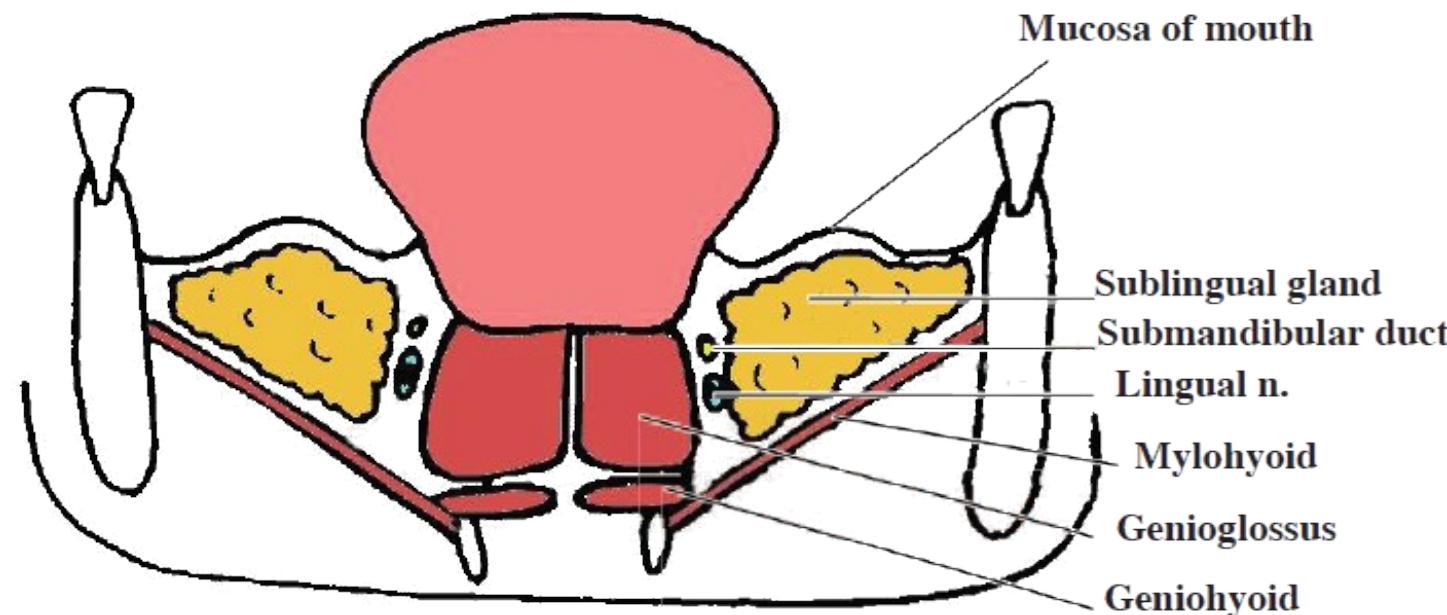
- **Relations**

Med: genioglossus, submandibular duct, lingual n.

Lat: sublingual fossa

Sup: mucosa of the floor of the mouth

Inf: mylohyoid m.



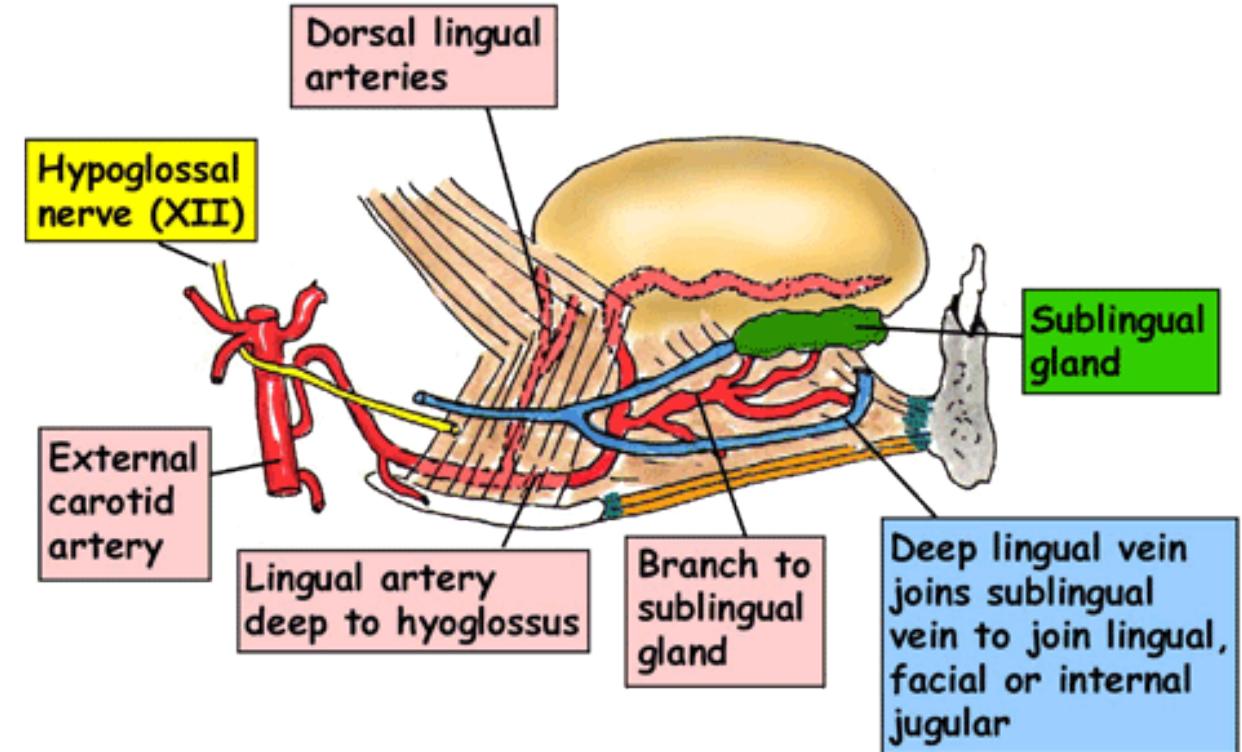
Sublingual Gland

- **Blood supply:**

Sublingual branches of lingual artery + submental branches of facial artery

- **Nerve supply:**

As submandibular gland



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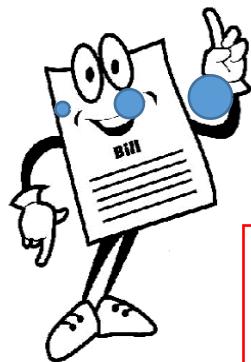


Lecture Quiz

- ***Sublingual ducts opens into:***

- a) Frenulum of tongue
- b) Sublingual fold
- c) Sublingual papilla
- d) Vestibule of mouth

Lecture Summary



Submandibular & Sublingual Glands

1. Describe the shape, , position, surfaces, relations of submandibular salivary gland
2. Describe course and site of opening of submandibular duct
3. Discuss nerve and blood supply of the submandibular gland
4. ~~Describe position , relations , ducts , nerve and blood supply of sublingual salivary gland~~

إذهب الى الجحيم

Go to Medicine :D

Suggested Readings



- 1. Gray's Anatomy for Students-4th Edition**
- 2. Atlas of human anatomy by Frank H. Netter, 6th Edition**
- 3. Clinical Anatomy for Medical Students, Richard S. Snell**

- For further inquiries PLZ feel free to contact at any time through email

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Thank you